Remarks

The Office Action dated September 9, 2005 has been carefully reviewed and the foregoing amendment has been made in consequence thereof.

Claims 5-19 and 25-28 are pending in this application. Claims 5-12, 17-19, and 24-26 stand rejected. Claims 1-4 and 20-24 have been canceled. Claims 13-16 and 27-28 are withdrawn from consideration.

In accordance with 37 C.F.R. 1.136(a), a one month extension of time is submitted herewith to extend the due date of the response to the Office Action dated September 9, 2005, for the above-identified patent application from December 9, 2005, through and including January 9, 2006. In accordance with 37 C.F.R. 1.17(a), authorization to charge a deposit account in the amount of $120.00 to cover this extension of time request also is submitted herewith.

The objection to the drawings under 37 CFR 1.83(a) is respectfully traversed.

Claim 9 recites "at least one flow baffle in said sump". Applicant respectfully submit that the drawings show this element. Particularly, Figure 2 clearly shows a single baffle 100 that extends annularly around wall 28.

Claim 24 has been canceled.

For the reasons set forth above, Applicants respectfully request that the objection to the drawings be withdrawn.

The rejection of Claims 5-12, 17-19, and 24-26 under 35 U.S.C. § 102(b) as being anticipated by Turricchia (US 5,315,625) is respectfully traversed.

Turricchia describes an apparatus for protecting the integrity of the reactor base container in a nuclear power plant. The apparatus consists of a pile of beams stacked in a configuration

where the bottom layer of beams are all parallel to each other, and each succeeding layer of beams are also parallel to each other but positioned at 90 degrees from the parallel beams in the layer directly below. The stack of beams rests on the floor of the primary containment directly below the reactor pressure vessel.

Independent Claim 9 of the present application recites in part "An assembly comprising: a containment vessel comprising a suppression pool, a drywell and a floor, said drywell comprising a sidewall extending from said floor, said sidewall separating said suppression pool from said drywell; a reactor pressure vessel installed inside said containment vessel; a base grid disposed below said pressure vessel and spaced vertically above said floor of said containment vessel to define a sump therebetween; an annular base grid shield wall extending vertically upward from said base grid, said base grid shield wall having a configuration comprising at least one of: (a) said base grid shield wall spaced inwardly from said drywell sidewall to define an annular channel therebetween; and (b) said base grid shield wall positioned adjacent said drywell sidewall; at least one flow baffle in said sump . . .".

Turricchia does not describe nor suggest an assembly as recited in Claim 9. Particularly, Turricchia does not describe nor suggest a base grid disposed below the pressure vessel and spaced vertically above the floor of the containment vessel to define a sump therebetween, and an annular base grid shield wall extending vertically upward from the base grid that is either spaced inwardly from the drywell sidewall or positioned adjacent the drywell sidewall. Rather, Turricchia describes an apparatus that consists of a pile of beams stacked on the floor of the primary containment directly below the reactor pressure vessel. Applicants submit that the stack of beams described by Turricchia is a flow baffle and not a base grid. For example, Turricchia

describes at Col. 5, lines 19-21 that " [t]he number, shape and dimensions of the beams 26 and the channels 27 are chosen such that the molten material does not reach the cooling fluid base 13". Also, Applicants submit that the Figures in Turricchia do not show an annular base grid shield wall extending vertically upward from the base grid that is either spaced inwardly from the drywell sidewall or positioned adjacent the drywell sidewall.

Applicants disagree with the suggestion at page 5 of the Office Action that "f) 'base grid shield wall' reads on the wall formed by any two horizontal beams 26a and a beam 26b sandwiched therebetween" because such a wall is not an annular wall that extends vertically upward from the base grid which is either spaced inwardly from the drywell sidewall or positioned adjacent the drywell sidewall. Accordingly, Applicants submit that independent Claim 9 is patentable over Turricchia.

Claims 5-8 and 10-12 depend from independent Claim 9. When the recitations of dependent Claims 5-8 and 10-12 are considered in combination with the recitations of Claim 9, Applicants respectfully submit that Claims 5-8 and 10-12 likewise are patentable over Turricchia.

Independent Claim 17 recites in part a nuclear reactor that includes "a core catcher cooling system located in said primary containment and disposed below said reactor pressure vessel, said core catcher cooling system comprising: a base grid having a top plate and a bottom plate, said base grid spaced vertically above said floor of said containment vessel to define a sump therebetween; an annular base grid shield wall extending vertically upward from said base grid, said base grid shield wall having a configuration comprising at least one of: (a) said base

grid shield wall spaced inwardly from said drywell sidewall to define an annular channel therebetween; and (b) said base grid shield wall positioned adjacent said drywell sidewall . . .".

Turricchia does not describe nor suggest nuclear rector as recited in Claim 17. Particularly, Turricchia does not describe nor suggest a base grid disposed below the pressure vessel and spaced vertically above the floor of the containment vessel to define a sump therebetween, and an annular base grid shield wall extending vertically upward from the base grid that is either spaced inwardly from the drywell sidewall or positioned adjacent the drywell sidewall. Rather, Turricchia describes an apparatus that consists of a pile of beams stacked on the floor of the primary containment directly below the reactor pressure vessel. Applicants submit that the stack of beams described by Turricchia is a flow baffle and not a base grid. For example, Turricchia describes at Col. 5, lines 19-21 that " [t]he number, shape and dimensions of the beams 26 and the channels 27 are chosen such that the molten material does not reach the cooling fluid base 13". Also, Applicants submit that the Figures in Turricchia do not show an annular base grid shield wall extending vertically upward from the base grid that is either spaced inwardly from the drywell sidewall or positioned adjacent the drywell sidewall.

Applicants disagree with the suggestion at page 5 of the Office Action that "f) 'base grid shield wall' reads on the wall formed by any two horizontal beams 26a and a beam 26b sandwiched therebetween" because such a wall is not an annular wall that extends vertically upward from the base grid which is either spaced inwardly from the drywell sidewall or positioned adjacent the drywell sidewall. Accordingly, Applicants submit that independent Claim 17 is patentable over Turricchia.

Claim 24 has been canceled.

Claims 18-19 and 25-26 depend from independent Claim 17. When the recitations of dependent Claims 18-19 and 25-26 are considered in combination with the recitations of Claim 17, Applicants respectfully submit that Claims 18-19 and 25-26 likewise are patentable over Turricchia.

For the reasons set forth above, Applicants respectfully request that the Section 102(b) rejection of Claims 5-12, 17-19, and 24-26 be withdrawn.

The rejection of Claims 5-12, 17-19, and 24-26 under 35 U.S.C. § 102(b) as being anticipated by Latter et al. (US 4,442,065) is respectfully traversed.

Latter et al. describe a nuclear reactor core catcher that is located below the floor of the containment vessel. The core catcher includes an "isolation conduit extending downward from the main floor of the nuclear reactor plant immediately below the reactor core" (see Col. 2, lines 25-30).

Latter et al. do not describe nor suggest an assembly as recited in Claim 9. Particularly, Latter et al. do not describe nor suggest a base grid disposed below the pressure vessel and spaced vertically above the floor of the containment vessel to define a sump therebetween, and an annular base grid shield wall extending vertically upward from the base grid that is either spaced inwardly from the drywell sidewall or positioned adjacent the drywell sidewall. Rather, Latter et al. describe an isolation conduit extending downward from the floor of the containment vessel. Specifically, Latter et al. describe at Col. 4, lines 40-46 that "[t]he floor of the containment structure 22 has been thinned down at 22, so that, in the unlikely event of a melt-down of the core 14, the floor 22 will be penetrated by the melted down fragments, and they will descend into the isolation tube 18 and eventually down into the core catcher heat exchanger

structure 20". Accordingly, Applicants submit that independent Claim 9 is patentable over Latter et al.

Claims 5-8 and 10-12 depend from independent Claim 9. When the recitations of dependent Claims 5-8 and 10-12 are considered in combination with the recitations of Claim 9, Applicants respectfully submit that Claims 5-8 and 10-12 likewise are patentable over Latter et al.

Latter et al. do not describe nor suggest nuclear reactor as recited in Claim 17. Particularly, Latter et al. do not describe nor suggest a base grid disposed below the pressure vessel and spaced vertically above the floor of the containment vessel to define a sump therebetween, and an annular base grid shield wall extending vertically upward from the base grid that is either spaced inwardly from the drywell sidewall or positioned adjacent the drywell sidewall. Rather, Latter et al. describe an isolation conduit extending downward from the floor of the containment vessel. Specifically, Latter et al. describe at Col. 4, lines 40-46 that "[t]he floor of the containment structure 22 has been thinned down at 22, so that, in the unlikely event of a melt-down of the core 14, the floor 22 will be penetrated by the melted down fragments, and they will descend into the isolation tube 18 and eventually down into the core catcher heat exchanger structure 20". Accordingly, Applicants submit that independent Claim 17 is patentable over Latter et al.

Claim 24 has been canceled.

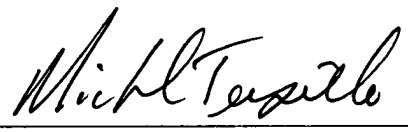
Claims 18-19 and 25-26 depend from independent Claim 17. When the recitations of dependent Claims 18-19 and 25-26 are considered in combination with the recitations of Claim

17, Applicants respectfully submit that Claims 18-19 and 25-26 likewise are patentable over Latter et al.

For the reasons set forth above, Applicants respectfully request that the Section 102(b) rejection of Claims 5-12, 17-19, and 24-26 be withdrawn.

In view of the foregoing amendments and remarks, all the claims now active in this application are believed to be in condition for allowance. Favorable action is respectfully solicited.

Respectfully submitted,



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